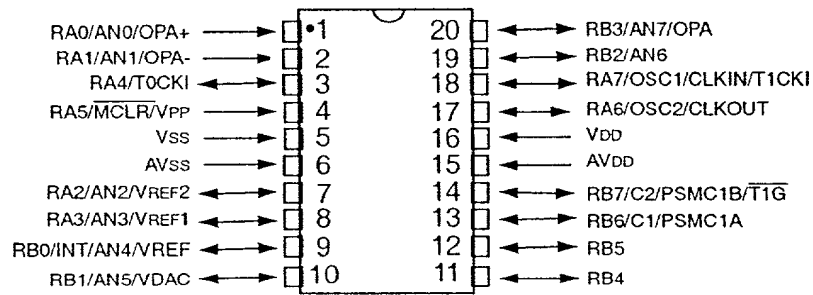


CLAIMS

WHAT IS CLAIMED IS:

1. A microcontroller having a functional pathway configuration for the interface between the microcontroller and a system with which the microcontroller communicates, as follows:



2. A system/IC interface forming a functional pathway configuration including at least two input/output ports comprising:

a first port including a first set of eight pins P1, P2, P3 ... P8, each of the eight pins of the first set having dedicated functions as follows:

PIN	DIRECTION	DEDICATED FUNCTION(S)
P1	I	RA0/AN0/OPA+
P2	I	RA1/AN1/OPA-
P3	I/O	RA2/AN2/VREF2
P4	I/O	RA3/AN3/VREF1
P5	I/O	RA4/T0CKI
P6	I	RA5/ $\overline{\text{MCLR}}$ /VPP
P7	I/O	RA6/OSC2/CLKOUT
P8	I/O	RA7/OSC1/CLKIN/T1CKI

and

a second port including a second set of eight pins P9, P10, P11 ... P16, each of the eight pins of the second set having dedicated functions as follows:

PIN	DIRECTION	DEDICATED FUNCTION(S)
P9	I/O	RB0/INT/AN4/VREF
P10	I/O	RB1/AN5/VDAC
P11	I/O	RB2/AN6
P12	I/O	RB3/AN7/OPA
P13	I/O	RB4
P14	I/O	RB5
P15	I/O	RB6/C1/PSMC1A
P16	I/O	RB7/C2/PSMC1B/ $\overline{\text{T1G}}$